Title 10—DEPARTMENT OF NATURAL RESOURCES

Division 10—Air Conservation Commission

Chapter 3—Air Pollution Control Rules Specific to the Outstate Missouri Area

10 CSR 10-3.010 Auto Exhaust Emission Controls

PURPOSE: This rule requires proper maintenance of original emission control devices and systems on 1968 and subsequent year motor vehicles.

(1) Definitions of terms specified in this rule may be found in 10 CSR 10-6.020.

(2) Ignition System and Engine Speed. All 1968 and subsequent model year gasoline-powered motor vehicles shall be maintained so as to be in compliance with the following requirements:

(A) The number of revolutions per minute of an engine while operating at idle speed shall be in accordance with the specifications and determined under conditions published by the manufacturer, but in no case shall the idle speed be less than the minimum specified in the manufacturer's published specifications. Revolutions per minute shall be determined by a tachometer or other device which shall be tested for accuracy and precision at reasonable intervals under those terms and conditions as the staff director may direct;

(B) Ignition timing of an engine shall comply with the published specifications of the manufacturer as determined in accordance with procedures and conditions specified by the manufacturer; and

(C) All cylinders shall be firing.

(3) Crankcase Ventilation System. The positive crankcase ventilation system on all 1968 and subsequent model year gasoline-powered motor vehicles, except motorcycles and motor tricycles, and all 1969 and subsequent model year gasoline-powered motor vehicles, including motorcycles and motor tricycles, shall meet the following requirements:

(A) The plumbing and connections shall be properly connected as installed by the manufacturer and free of obstructions and leakage;

(B) There shall be a negative pressure (suction) at the inlet of the crankcase ventilation valve; and

(C) The crankcase ventilation valve shall be freely operative so as to regulate the flow of gases through the system.

(4) Exhaust Emission Control Systems.

(A) Air Injection Systems. Exhaust emission control air injection systems on those gasoline-powered motor vehicles so equipped by the manufacturer shall operate so that—

1. The air delivery hoses, connections and air distribution manifold shall be properly connected as installed by the manufacturer and free of obstructions and leakage;

2. The air compressor drive belt tension shall be within manufacturer's specification;

3. There is a positive air flow from the air pump to the air delivery distribution manifold;

4. The check valve prevents any reverse air flow from the air distribution manifold out through the check valve inlet; and

5. The antibackfire valve, gulp-valve, air bypass valve or other similar device with the same function permits the passage of air from the air pump to the exhaust manifold(s), except when the carburetor throttle is closed rapidly from an open position as in deceleration.

(B) Engine Modification Systems. All vacuum control valves, vacuum lines, mechanical linkage, electrical circuits and switches peculiar to certain engine modification systems shall be properly connected as installed on all 1968 and subsequent model year gasoline-powered motor vehicles so equipped by the manufacturer.

(C) The requirements of section (4) shall apply to all gasoline-powered motor vehicles with the following exceptions:

1. Vehicles of 1967 or earlier model year;

2. Vehicles not equipped by the manufacturer with exhaust emission control air injection systems;

3. Commercial vehicles of over one thousand pounds (1000 lbs.) designed capacity; or

4. Motor vehicles with an engine displacement of less than fifty (50) cubic inches (819.35 cubic centimeters).

AUTHORITY: section 643.050, RSMo Supp. 1992. Original rule filed April 26, 1968, effective May 6, 1968. Amended: Filed Aug. 16, 1977, effective Feb. 11, 1978.*

**Original authority: 643.050, RSMo 1965, amended 1972, 1992.*

Op. Atty. Gen. No. 331, Shell (11-15-71). *The Missouri Air Conservation Commission does not have any specific authority to require the installation of emission monitoring devices, but does have the authority to require reports from sources of air pollution relating to rate, period of emission and composition of effluent, and to make such information available to the public, unless any such information is "confidential" as defined by section 203.050.4, RSMo 1969.*

10 CSR 10-3.020 Approval of Planned Installations

(Rescinded April 11, 1980)

AUTHORITY: section 203.050, RSMo 1978. Original rule filed Sept. 8, 1970, effective Sept. 18, 1970. Amended: Filed Jan. 31, 1972, effective Feb. 10, 1972. Amended: Filed Aug. 25, 1972, effective Sept. 4, 1972. Amended: Filed Aug. 16, 1977, effective Feb. 11, 1978. Rescinded: Filed Dec. 10, 1979, effective April 11, 1980.

Op. Atty. Gen. No. 331, Shell (11-15-71). *The Missouri Air Conservation Commission has the authority under Chapter 203, RSMo 1969, to provide for the equivalent of a construction permit system by promulgating rules to require the submission of plans and specifications for approval before any person may construct any facility which will cause air pollution, but that the commission has no such authority regarding an equivalent permit system for the operation of existing facilities which are the source of air pollution.*

10 CSR 10-3.030 Open Burning Restrictions

PURPOSE: This rule prohibits the disposal of refuse by open burning except as provided under specified conditions.

(1) Applicability. This rule shall apply throughout Missouri except in the City of St. Louis and St. Charles, St. Louis, Jefferson, Franklin, Clay, Cass, Buchanan, Ray, Jackson, Platte and Greene Counties.

(2) Definitions of terms specified in this rule may be found in 10 CSR 10-6.020. Staff director as used in this rule refers to the director of the Air Pollution Control Program or his/her designee.

(3) General Provisions. No person may conduct, cause, permit or allow the disposal of trade waste, construction waste, salvage operation waste, or demolition project waste by open burning, except as provided for in section (4). This open burning prohibition includes, but is not limited to, tires, rubber products, asbestos-containing material, hazardous material, styrofoam, plastics, petroleum-based products, treated wood and other refuse.

(4) Exceptions.

(A) The open burning of certain trade wastes and vegetation may be permitted only when it can be shown that an emergency exists which requires open burning, or when

it can be shown that open burning is the only safe or feasible method of disposal. Economic considerations shall not be the primary determinant of feasibility. Any person intending to engage in open burning shall file an application with and receive written approval from the staff director. The application shall state the following:

1. The name, address and telephone number of the person submitting the application;

2. The type of business or activity involved;

3. A description of the proposed equipment and operating practices, the type, quantity and composition of trade wastes and vegetation to be burned and expected composition and amount of air contaminants to be released to the atmosphere where known;

4. The schedule of burning operations;

5. The exact location where open burning will be used to dispose of the trade wastes and vegetation;

6. Reasons why an emergency exists or no method other than open burning is feasible; and

7. Evidence that the proposed open burning has been approved by the fire control authority which has jurisdiction. Upon receiving written approval of the application by the staff director, the person may proceed with the operation without being in violation of section (3) of this rule, but approval shall not exempt the applicant from complying with the provisions of any other law, ordinance or rule.

(B) An open burning permit may be issued by the staff director for open burning on a temporary basis at a sanitary landfill, demolition landfill, compost plant, transfer station or salvage operation; provided, that—

1. The sanitary landfill, demolition landfill, compost plant, transfer station or salvage operation has a valid permit issued by the Missouri Department of Natural Resources Solid Waste Management Program, or is approved for open burning by the staff director in cases where a Solid Waste Management Program permit is not required;

2. Only tree trunks, tree limbs, vegetation (excluding leaves or lawn clippings) or untreated waste lumber are burned;

3. The open burning will take place at a time of day when atmospheric conditions will permit adequate dispersion of smoke and shall require the use of an air curtain destructor. The air curtain destructor shall be properly operated so as to minimize emissions and, other than during startup periods, shall not exceed twenty percent (20%) opacity when operating;

4. The distance from the open burning site to the nearest inhabited residence or commercial business is at least two hundred (200) yards or greater distances as determined by the staff director to be required to prevent a nuisance;

5. The open burning will not hinder the operation of the installation itself, ignite material other than that specified in paragraph (4)(B)2. or otherwise create a fire hazard;

6. The fire control authority which has jurisdiction approves the method and site of open burning;

7. The owner or operator complies with all applicable laws, rules and ordinances regulating open burning;

8. The owner or operator submits information to the staff director prior to the issuance of the permit showing that the conditions of this subsection will be met;

9. The staff director may place conditions in the permit concerning times, methods and locations of burning in order to prevent air pollution, nuisance conditions or safety hazards; and

10. The permit may be revoked if the owner or operator fails to comply with the provisions of this subsection or any conditions of the permit, or if a permit issued by the Solid Waste Management Program as specified in paragraph (4)(B)1. is revoked or voided.

(C) This rule shall not apply to the following, except as noted in subsection (4)(D):

1. Burning of household refuse on a residential premises having not more than four (4) dwelling units, provided that the refuse originates on the same premises and excludes tires;

2. Untreated wood waste materials resulting from wood processing facilities in existence as of March 25, 1976, and which do not relocate to a new site and producing less than eight thousand (8,000) board feet or equivalent per day may be open burned if at least two hundred (200) yards from the nearest occupied structure. Untreated wood waste materials resulting from wood processing plants which relocate or from new wood processing facilities not in existence as of September 18, 1970, and producing less than eight thousand (8,000) board feet, or equivalent per day, may be open burned if at least one (1) mile outside the city limits of any incorporated area or municipality and at least two hundred (200) yards from the nearest occupied structure;

3. Open burning of tree trunks, tree limbs and vegetation from land clearing operations, commercial tree trimming and municipal utility tree trimming operations when burning takes place outside the city limits of any incorporated area or municipality and at a distance equal to or greater than two hundred (200) yards from the nearest occupied structure. Commercial tree trimming operations and municipal utility tree trimming operations shall submit a written request to the staff director for an annually renewable open burning permit. The request shall describe the general size, condition, and age of the tree trunks and tree limbs to be open burned. The permit, if issued, shall outline any restrictions and/or conditions placed on the open burning and circumstances for permit revocation or nonrenewal;

4. Fires set on cropland in connection with agricultural or forestry operations related to the growing or harvesting of crops.

5. Fires set for the purpose of training fire fighters and industrial employees in fire fighting methods provided that 1) the training is conducted in strict accordance with National Fire Protection Association NFPA 1403, *Standard on Live Fire Training Evolutions in Structures,* for fire fighters and NFPA 600 for industrial employees, 2) asbestos-containing products or materials or petroleum-based products or materials such as asphalt shingles and floor or ceiling tiles are removed prior to fire training, 3) no tires are burned, and 4) the fire is completely extinguished at the end of the training session. The staff director shall be notified in writing a minimum of one (1) week prior to the fire training. In the case of a local fire department accepting buildings for purposes of fire training, it is the responsibility of that fire department to assure all asbestos-containing products or materials, carpeting, and petroleum-based products or materials such as asphalt shingles, linoleum, and floor or ceiling tiles are removed prior to fire training (this provision is not intended to supersede the liability in the NESHAP, 40 CFR part 61, subpart M 61.145(c)(10));

6. Camp fires and other fires used solely for recreational purposes, for ceremonial occasions or for outdoor noncommercial preparation of food;

7. Prescribed burning for natural resource management purposes limited to authorized agencies; or

8. Fires set for the purpose of protecting human health or preventing environmental damage in conjunction with environmental emergency response activities under the direction of the department's environmental emergency response personnel and approved by the staff director.

(D) Nothing in this rule may be construed to permit open burning which causes or constitutes a public health hazard, nuisance, or a

hazard to vehicular or air traffic, nor which violates any other rule or statute.

AUTHORITY: section 643.050, RSMo Supp. 1997. Original rule filed Sept. 8, 1970, effective Sept. 18, 1970. Amended: Filed Jan. 31, 1972, effective Feb. 10, 1972. Amended: Filed Aug. 16, 1977, effective Feb. 11, 1978. Amended: Filed Nov. 9, 1983, effective April 12, 1984. Amended: Filed Jan. 2, 1998, effective Aug. 30, 1998.*

**Original authority: 643.050, RSMo 1965, amended 1972, 1992.*

10 CSR 10-3.040 Incinerators
(Rescinded December 9, 1991)

AUTHORITY: section 203.050, RSMo 1986. Original rule filed Sept. 8, 1970, effective Sept. 18, 1970. Amended: Filed Jan. 31, 1972, effective Feb. 10, 1972. Amended: Filed Aug. 16, 1977, effective Feb. 11, 1978. Amended: Filed Dec. 15, 1982, effective May 12, 1983. Amended: Filed Oct. 13, 1983, effective March 12, 1984. Rescinded: Filed May 20, 1991, effective Dec. 9, 1991.

10 CSR 10-3.050 Restriction of Emission of Particulate Matter From Industrial Processes
(Rescinded March 30, 2001)

AUTHORITY: section 643.050, RSMo Supp. 1998. Original rule filed March 24, 1971, effective April 3, 1971. Amended: Filed Jan. 31, 1972, effective Feb. 10, 1972. Amended: Filed June 30, 1975, effective July 10, 1975. Amended: Filed Aug. 16, 1977, effective Feb. 11, 1978. Amended: Filed May 12, 1978, effective Oct. 11, 1978. Amended: Filed March 15, 1979, effective Nov. 11, 1979. Amended: Filed Oct. 11, 1983, effective March 12, 1984. Amended: Filed June 15, 1998, effective Jan. 30, 1999. Amended: Filed Feb. 16, 1999, effective Sept. 30, 1999. Emergency amendment filed March 26, 1999, effective April 5, 1999, expired Oct. 1, 1999. Rescinded: Filed Aug. 4, 2000, effective March 30, 2001.

10 CSR 10-3.060 Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating

PURPOSE: This rule restricts the emission of particulate matter from fuel burning equipment used for indirect heating except where 10 CSR 10-6.070 would be applied.

(1) Application. This rule shall apply throughout Missouri except in the City of St. Louis and St. Charles, St. Louis, Jefferson, Franklin, Clay, Cass, Buchanan, Ray, Jackson, Platte and Greene Counties.

(2) Definitions of terms specified in this rule may be found in 10 CSR 10-6.020.

(3) General Provisions.

(A) This rule applies to installations in which fuel is burned for the primary purpose of producing steam, hot water or hot air or other indirect heating of liquids, gases or solids and in the course of doing so, the products of combustion do not come into direct contact with process materials. Fuels may include for example coal, coke, lignite, coke breeze, gas, fuel oil and wood, but do not include refuse. When any products or by-products of a manufacturing process are burned for the same purpose or in conjunction with any fuel, the same maximum emission limitations shall apply.

(B) The heat content of solid fuels shall be determined as specified in 10 CSR 10-6.040(2). The heat content of liquid hydrocarbon fuels shall be determined as specified in 10 CSR 10-6.040(3).

(C) For purposes of this rule, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack(s). The heat input value used shall be the equipment manufacturer's or designer's guaranteed maximum input, whichever is greater, except in the case of boilers of ten (10) million British thermal units (Btu) or less the heat input can also be determined by the higher heating value (HHV) of the fuel used at maximum operating conditions. The total heat input of all fuel burning units at a plant or on a premises shall be used for determining the maximum allowable amount of particulate matter which may be emitted.

(D) The amount of particulate matter emitted shall be determined as specified in 10 CSR 10-6.030(5). Any other method which is in accordance with good professional practice may be used with the consent of the staff director.

(E) This rule shall not apply to indirect heating sources subject to the provisions of 10 CSR 10-6.070. However, indirect heat input values from sources that are subject to New Source Performance Standards shall be used in the calculation of Q (the installation's total heat input).

(F) Indirect heating sources requiring permits under 10 CSR 10-6.060 that in turn may require particular air pollution control measures to meet more stringent emission limitations than in this rule shall meet the requirements of 10 CSR 10-6.060 Permits Required.

(4) Emission Limitations for Existing Indirect Heating Sources.

(A) No person may cause, allow or permit the emission of particulate matter from existing indirect heating sources in excess of that specified in the following schedule:

1. If the total equipment heat input has a capacity rating of ten (10) million Btu or less, 0.60 pounds for each million Btu per hour input; or

2. If the total equipment heat input has a capacity rating of ten thousand (10,000) million Btu or more, 0.18 pounds for each million Btu per hour input.

(B) The amount of particulate matter which may be emitted from fuel burning equipment having an intermediate capacity rating between ten (10) million and ten thousand (10,000) million Btu shall be determined by use of the following equation:

$$E = 0.90(Q)^{-0.174}$$

where

E = the maximum allowable particulate emission rate in pounds per million Btu of heat input, rounded off to two (2) decimal places; and

Q = the installation heat input in millions of Btu per hour.

(5) Emission Limitation for New Indirect Heating Sources.

(A) No person may cause, allow or permit the emission of particulate matter in excess of that specified in the following schedule:

1. If the total equipment heat input has a capacity rating of ten (10) million Btu or less, 0.60 pounds for each million Btu per hour input; or

2. If the total equipment heat input has a capacity rating of two thousand (2000) million Btu or more, 0.10 pounds for each million Btu per hour input.

(B) The amount of particulate matter which may be emitted from fuel burning equipment having an intermediate capacity rating between ten (10) million and two thousand (2000) million Btu shall be determined by use of the following equation:

$$E = 1.31(Q)^{-0.338}$$

where

E = the maximum allowable particulate emission rate in pounds per million Btu of heat input, rounded off to two (2) decimal places; and

Q = the installation heat input in millions of Btu per hour.